X-ma 6000, 3000 Series

Features

> Excellent stability
> Fixed slits
> Large LCD screen
> Pre-aligned deuterium lamp

> Powerful buit-in or PC windows based software including sophisticated utility programs
> Auto 8 cell holder

X-ma 6000 Series!
(Double beam)

X-ma 3000 Series!
(Single beam)

Innovative optical system, high performance.

Model : X-ma 6000 Series
X-ma 3000 Series

| Model	X-ma 6100 (PC)	X-ma 6300 (PC)	X-ma 6100S (PCS)
Beam Type	Double beam		
Wavelength Range	190-1100nm	190-1100nm	190-1100nm
Spectral Bandwidth	1.8nm	1.0nm	0.5/1/2/4nm
Optical System	Double Beam, Grating 1200 Lines/mm		
Wavelength Accuracy	±0.3nm		
Wavelength Repeatability	0.2nm		
Scanning Speed	Hi, Med, Low Max.3000nm/min		
Photometric Accuracy	±0.3%T		
Photometric Repeatability	±0.15%T		
Photometric Range	-0.3-3A, 0-200%T, 0-9999Conc.		
Stray Light	0.05%T		
Stability	±0.001A/h @ 500nm		
Display	±0.001A (200-1000nm)		
Baseline Flatness	Large LCD Display (W100×H78mm, 5 inch) or PC Model		
Sample Compartment	Halogen & Deuterium lamp (pre-aligned)		
Light Source	Auto 8 cell holder		
Output	USB Port & Parallel Port (Printer)		
Power Requirement	AC 220V/50Hz or AC 110V/60Hz		
Dimensions (W×D×H)	600 x 450 x 200mm		
Weight	22kg		
Performance	**1. Basic Mode** Absorbance, Transmittance or concentration measurements **2. Quantitative** Establish or use stored calibration equation to measure the concentration of unknowns **3. WL scan** Spectrum scan of sample at any selected wavelength range with choice of scanning speed and wavelength interval **4. Kinetics** Measurement of absorbance changing vs. time with reaction rate calculation function **5. Multi Wavelength** Measurement at multiple wavelengths to analyze and determine the composition of the mixtures **6. DNA/Protein** Calculation of concentration and DNA purity. Ratio at other wavelengths can be measured		
Optional Accessories	• 3, 5, 10 cm 4-cell holder • Test tube holder • Micro cell holder • Printer • Water-jacket cell holder • Cell • Ambient sipper/ Peltier system		

All specifications are subject to change without notice


The PC application software offers

> Basic Photometric Mode
> Quantitative test (standard curve)
> Wavelength Scanning
> Kinetics

> DNA/Protein
> Multi-wavelength Test
> System Utility
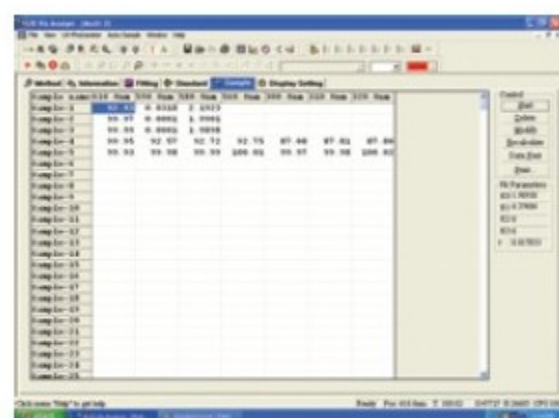
Multi-wavelength
Up to 32 wavelengths can be selected and multiple samples can be measured. (Auto cell changer is required to run multiple samples auto-matically)
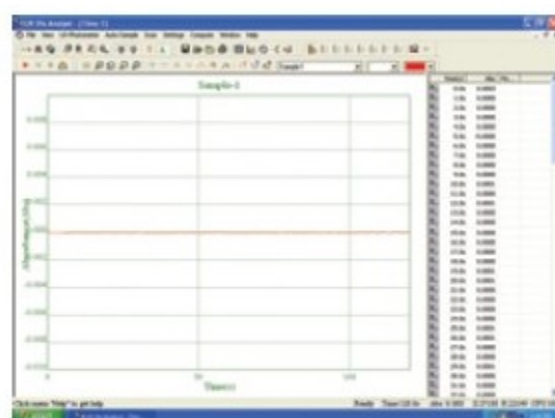

Kinetics (Abs vs. Time)
The Kinetics mode may be used for time course scanning or reaction rate calculations. Abs. vs. time graphs is displayed on the screen in real time. Wait time, measurement time and time intervals may be entered. Post-run manipulation includes re-scaling,curve tracking and selection of the part of the curve required for the rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor.
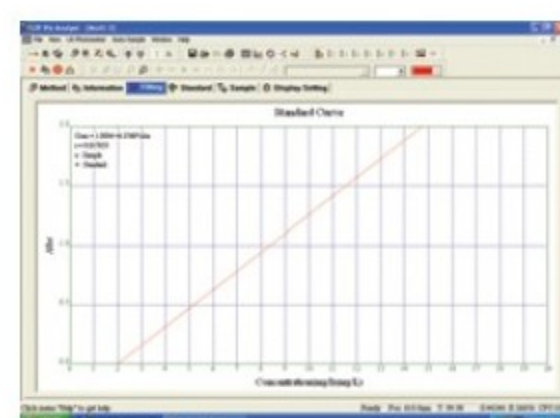
Quantitative Test (standard Curve)
Use up to 32 standards to establish standard curve. Four methods for fitting a curve :
1. Linear fit
2. Linear through zero
3. Square fit
4. Cubic fit
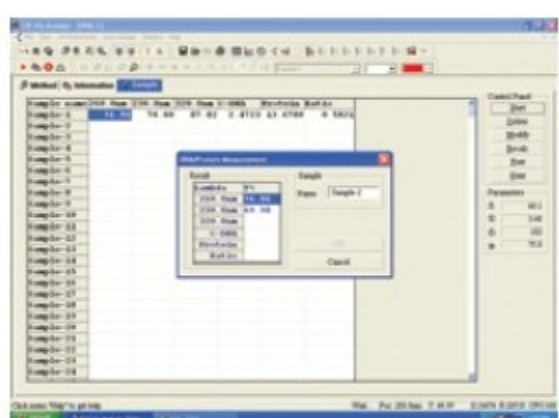
DNA/Protein
Concentration and DNA purity are quickly and easily calculated : Absorbance ratios 260nm/280nm with optional subtracted absorbance at 320nm.
  DNA concentration = 62.9 X A260 - 36.0 X A280
  Protein concentration = 1552 X A260 - 757.3 X A280
other wavelengths and factors may be entered.
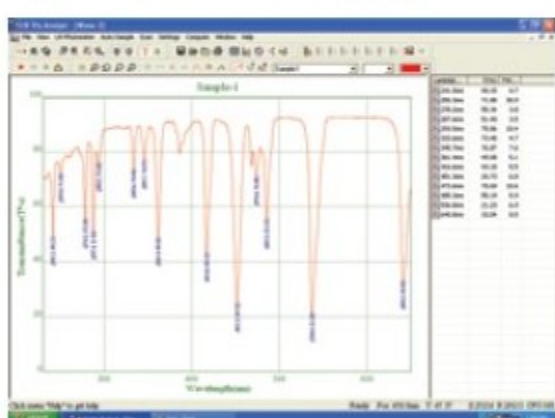
Wavelength Scanning
Automatically record peaks and valleys. The quantity of channels is unlimited, you can simultaneously store curves as many as you want.
Post-run manipulation and processing includes :
1. Re-scaling axes, curve
2. 1st to 4th derivative
3. Smoothing, combination, zooming, overlap ...

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Model	X-ma 3000 (PC)	X-ma 3100 (PC)	X-ma 3200 (PC)
Beam Type	Singl Beam		
Wavelength Range	190 ~ 1100 nm		
Spectral Bandwidth	2.5 nm	2.0 nm	1.8 nm
Optical System	Single beam, Grating 1200 lines/mm		
Wavelength Accuracy	± 0.5 nm	± 0.5 nm	± 0.3 nm
Wavelength Repeatability	0.3 nm	0.3 nm	0.2 nm
Scanning Speed	Hi, Med, Low, Max 3000 nm/min		
Photometric Accuracy	± 0.3 %T	± 0.3 %T	± 0.2 %T
Photometric Repeatability	± 0.2 %T	± 0.2 %T	± 0.15 %T
Photometric Range	-0.3 to 3.0A / 0 to 200%T / 0 to 9999C		
Stray Light	±0.05 %T		
Stability	± 0.002 A/h	±0.002 A/h	0.001 A/h
Display	Large LCD Display (W100×H78mm, 5 inch) or PC Model		
Baseline Flatness	± 0.002A	± 0.002A	± 0.001A
Sample Compartment	Auto 8 cell holder		
Light Source	Halogen & Deuterium lamp (Pre-aligned)		
Output	USB Port & Parallel Port (Printer)		
Power Requirement	220/110V, 60/50 Hz		
Dimensions (W×D×H)	480 × 360 × 160 mm		
Weight	16 kg		
Performance	**1. Basic Mode** Absorbance, Transmittance or concentration measurements **2. Quantitative** Establish or use stored calibration equation to measure the concentration of unknowns **3. WL scan** Spectrum scan of sample at any selected wavelength range with choice of scanning speed and wavelength interval **4. Kinetics** Measurement of absorbance changing vs. time with reaction rate calculation function **5. Multi Wavelength** Measurement at multiple wavelengths to analyze and determine the composition of the mixtures **6. DNA/Protein** Calculation of concentration and DNA purity. Ratio at other wavelengths can be measured		
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